

for Liquid Chromatography

Develosil™ HB Series

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Welcome to the new world!!



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Develosil™ HB Series

The HB series comes up from Develosil™. The conventional and properties of matter, performance just improves through-put.



1 Specifications

Develosil™ HB Series

● New filling method

The HB series adopts a different filling method so far. As a result, HB was close packed and obtained a method to fill.

● Particle diameter 3μm

The HB series was adopted particle diameter 3μm. Therefore it is not necessary to build a special system.

● High pressure tightness

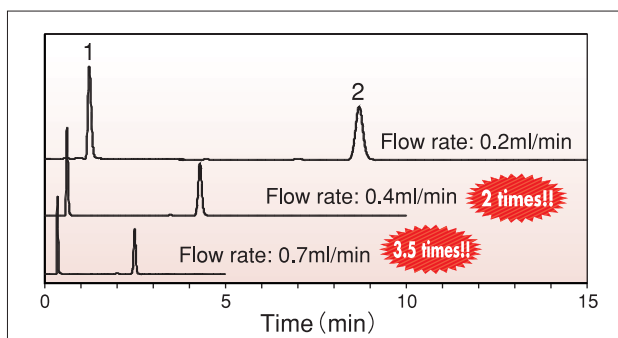
In HB series, the biggest pressure is 35MPa. It is usually 20MPa. (But ,Length:35mm and 50mm are 30MPa.)

● Shortening of the analysis time

The HB series is designed for high-throughput and handle many samples in a short time.

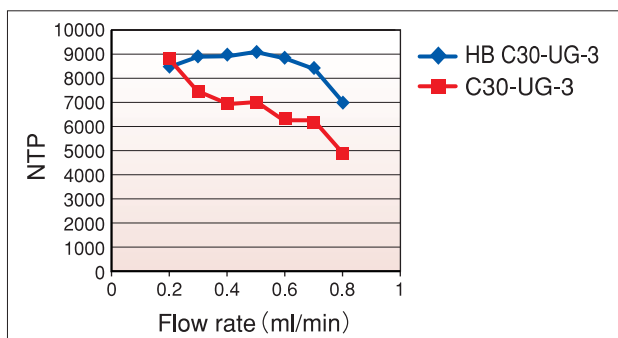
2 Characteristic of the HB series

Develosil™ HB Series



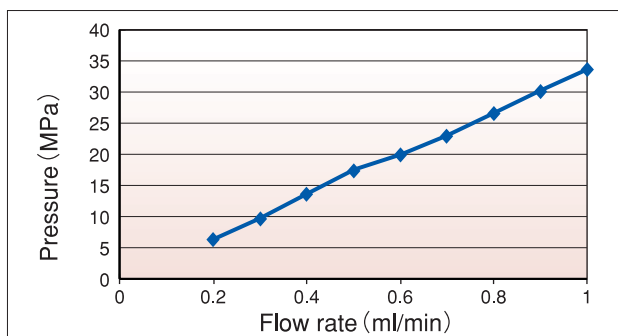
■ Fig.1 Example of becoming it high throughput

Conditions:
Column : Develosil® HB C30-UG-3 (2.0x100mm)
Mobile Phase : Acetonitrile/Water=50/50
Flow rate : 0.2ml/min~0.7ml/min
Temperature : 40°C
Sample : 1.Uracil (0.05mg/ml)
2.Naphthalene (0.10mg/ml)
Injection volume : 0.4μL



■ Fig.2 It is compared the number of NTP in becoming it high throughput

Conditions:
Column : Develosil® HB C30-UG-3 (—) 2.0x100mm
Develosil® C30-UG-3 (---) 2.0x100mm
Mobile Phase : Acetonitrile/Water=50/50
Flow rate : 0.2ml/min~1.0ml/min
Temperature : 40°C
Sample : 1.Uracil (0.05mg/ml)
2.Naphthalene (0.10mg/ml)
Injection volume : 0.4μL



■ Fig.3 Relations of speed and the pressure

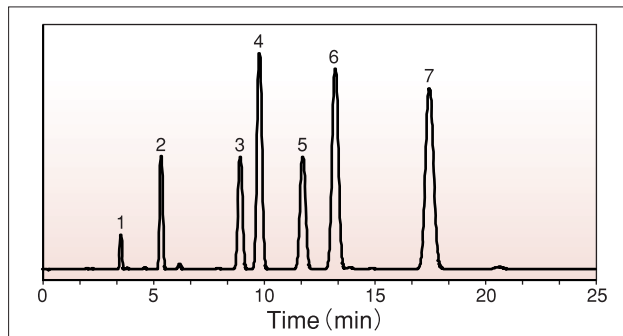
The HB series adopts a new filling method for highThrough-put. In this way, The HB series secures separation and NTP unlike the case that speed improves a normal column. (Fig.2)。

In addition, the HB series is superior in pressure tightnessso that ,Fig.3 shows it. This series assumes the upper limit 35MPa, but this range can support by a normal system enough.

3 Is not through-put precocious including becoming it?

Develosil™ HBSeries

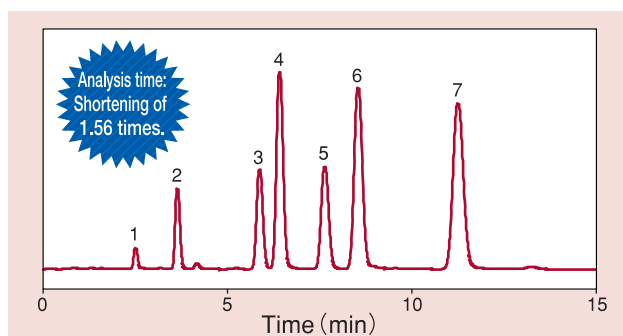
Example: Analysis of polycyclic aromatic compounds



Conditions:
Column : Develosil® ODS-5 (4.6x150mm)
Mobile Phase : Acetonitrile/Water=70/30
Flow rate : 1.0ml/min
Temperature : 30°C
Sample : 1.Benzene / 2.Naphthalene / 3.Phenanthrene
4.Anthracene / 5.Fluroanthene / 6.Pyrene / 7.Chrysene
Injection volume : 1.0uL

Analysis using particle diameter 5um, 4.6x150mm Let's become through-put using HB series from here.

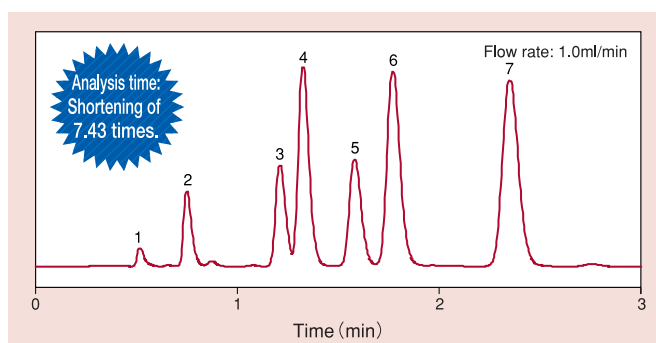
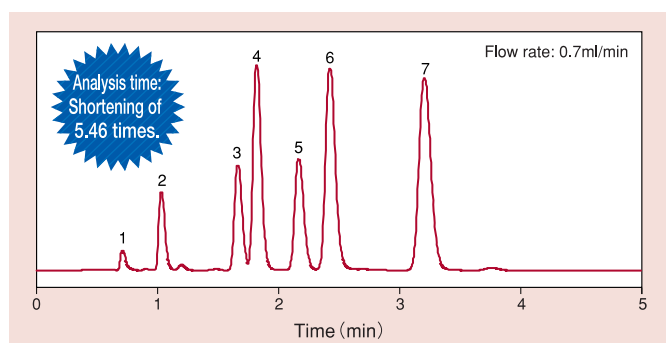
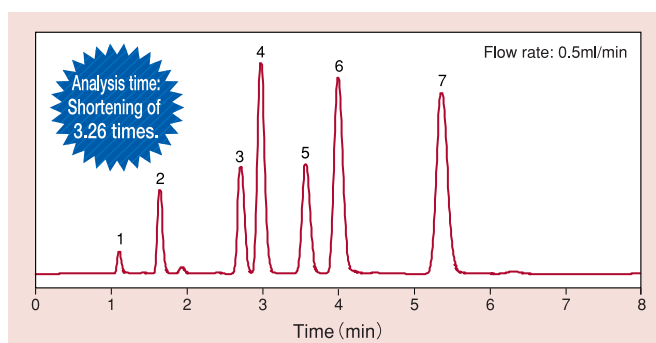
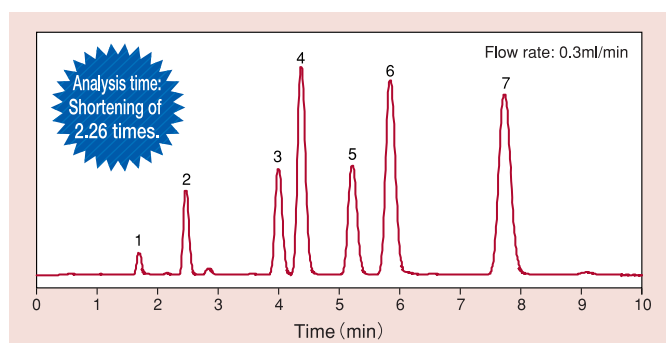
STEP1 Let's shift to particle diameter 3um.



Conditions:
Column : Develosil® HB ODS-3 (2.0x100mm)
Mobile Phase : Acetonitrile/Water=70/30
Flow rate : 0.2ml/min
Temperature : 30°C
Sample : 1.Benzene / 2.Naphthalene / 3.Phenanthrene
4.Anthracene / 5.Fluroanthene / 6.Pyrene / 7.Chrysene
Injection volume : 1.0uL

The column changes it to HB ODS-3. The length chooses 100mm to get the same selectivity. The HB series is Main from here !!

STEP2 Let's increase speed.



4 Attention for through-put

Develosil™ HBSeries

All the data in this catalogue use general-purpose HPLC, but work as a laborer not to spoil performance.

- Use the flow cells of the semi-micro type
- Use the tubing of inside diameter:0.15mm, length:500mm in front and behind column.
- Use a connector with the pressure tightness for a connection part.

A and B are used to suppress the dead volume as much as possible. The extremely thin tubes cause unexpected upward pressure.

HB ODS-UG-3

Main Column

Product name	Column size (i.d.xlength)	Particle size (um)	Pack	Code	Price (yen)
HB ODS-UG-3	2.0x35mm	3	1	HBUG113200351	
			4	HBUG113200354	
	2.0x50mm		1	HBUG113200501	50,0
			4	HBUG113200504	180,000
	2.0x75mm		1	HBUG113200751	61,000
			3	HBUG113200753	170,000
	2.0x100mm		1	HBUG113201001	61,000
			3	HBUG113201003	170,000
	2.0x150mm		1	HBUG113201501	65,000
			3	HBUG113201503	180,000

HB ODS-HG-3

Main Column

Product name	Column size (i.d.xlength)	Particle size (um)	Pack	Code	Price (yen)
HB ODS-HG-3	2.0x35mm	3	1	HBHG113200351	50,000
			4	HBHG113200354	180,000
	2.0x50mm		1	HBHG113200501	50,000
			4	HBHG113200504	180,000
	2.0x75mm		1	HBHG113200751	61,000
			3	HBHG113200753	170,000
	2.0x100mm		1	HBHG113201001	61,000
			3	HBHG113201003	170,000
	2.0x150mm		1	HBHG113201501	65,000
			3	HBHG113201503	180,000

HB C30-UG-3

Main Column

Product name		Column size (i.d.xlength)	Particle size (um)	Pack	Code	Price (yen)
HB C30-UG-3	2.0x35mm	3	1	HBUG173200351	50,000	
			4	HBUG173200354	180,000	
	2.0x50mm		1	HBUG173200501	50,000	
			4	HBUG173200504	180,000	
	2.0x75mm		1	HBUG173200751	61,000	
			3	HBUG173200753	170,000	
	2.0x100mm		1	HBUG173201001	61,000	
			3	HBUG173201003	170,000	
	2.0x150mm		1	HBUG173201501	65,000	
			3	HBUG173201503	180,000	

- All the HB series becomes the setting only for 2.0mm inside diameter.
- All the column connection types become the setting only for Waters types.
- The filler except the above has the handling. Please refer willingly.

Ako nás možno kontaktovať:

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